

REMARKS

This paper is in response to the official action of June 16, 2005. Reconsideration is requested.

By the foregoing, the limitations of claims 2 and 9 have been incorporated into independent claims 1 and 4, respectively, and claims 2 and 9 have been canceled. Claims 4 and 11 have been rewritten in independent form, and non-elected claims 14-46 have been canceled.

No fee is believed to be due.

The anticipation rejection of claims 1-13 based on Falster et al. U.S. 5,994,761 is respectfully but strongly traversed. Reconsideration is requested.

It is axiomatic that in order to support an anticipation rejection, each and every limitation of the rejected claims must be shown in the reference. According to claim 1, the concentration profile of defects in the bulk region is maintained substantially constant in the direction from the front surface to the back surface. According to claim 8, the concentration profile of defects in the bulk region has a planar shape with an arrange of variation of about 10% or less. In each claim 1 and 8, the defects are microdefects (BMD) including oxygen participates and bulk stacking faults.

Falster et al. shows that the peak value of vacancy concentration exists, and provides a silicon wafer having a vacancy concentration profile in which the peak density of the vacancies is at or near the central plane with the concentration generally decreasing in the direction of the front surface. In the invention, on the other hand, the bulk micro defects including oxygen precipitates and bulk stacking faults are substantially uniform.

Regarding the defects distribution, the cited reference discloses a wafer whose vacancy concentration is at its highest in the center region and decreases as it moves to the surface region. However, according to the invention the bulk micro defects have a uniform

distribution in the bulk region after a two-step rapid thermal process, and DZ having a constant depth is formed stably in the surface layer.


Therefore, it is believed all claims 1, 3-8, and 10-13 are allowable.

A supplemental information disclosure statement is submitted herewith.

Should the examiner wish to discuss the foregoing or any matter of form in an effort to advance this application toward allowance, he is urged to telephone the undersigned at the indicated number.

Respectfully submitted,

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